

Society of Petroleum Engineers

Coiled Tubing & Well Intervention Conference & Exhibition 2008

April 1-2, 2008
The Woodlands, Texas, USA

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571
www.proceedings.com

ISBN: 978-1-60560-148-9

Some format issues inherent in the e-media version may also appear in this print version.

Copyright and Use Restrictions

Copyright 2008, Society of Petroleum Engineers

Material included in this Proceedings is copyright protected. Electronic reproduction, distribution, or storage of any part of an SPE-copyrighted paper for commercial purposes without the written consent of the Society of Petroleum Engineers is prohibited. Permission to reproduce in print is restricted to an abstract of not more than 300 words; illustrations may not be copied. The abstract must contain conspicuous acknowledgment of where and by whom the paper was presented. For photocopying beyond the above permissions, libraries and other users dealing with the Copyright Clearance Center (CCC) Transactional Reporting Service must pay a base fee of \$3 per copyrighted article plus \$0.25 per page to CCC, 222 Rosewood Drive, Danvers, Massachusetts 01923 U.S.A. For other permissions, contact Librarian, SPE, 222 Palisades Creek Drive, Richardson, Texas 75080-2040 U.S.A. Use of SPE member or author contact information included on this CD for commercial purposes or reproduction of that information in whole or in part, in any form or medium, is strictly prohibited and subject to legal action. Contact SPE to inquire about rental of mailing lists. This CD of the 2008 SPE/ICoTA Coiled Tubing and Well Intervention Conference and Exhibition was produced by SPE. Permission to print and distribute content from this product must be obtained from SPE. Duplication of replication products is absolutely prohibited without written permission from SPE and Adobe. Adobe, the Adobe logo, and Reader are either registered trademarks or trademarks of Adobe Systems Incorporated in the United States and/or other countries. Material on the CD was reproduced from original papers and/or electronic files provided by the authors. Some discrepancies are inevitable. Please advise SPE of errors so corrections can be made to the electronic versions of the article. Send corrections by e-mail to pdf@spe.org or mail to the SPE Americas Office, attention Technical Paper Administrator.

Society of Petroleum Engineers

Coiled Tubing & Well Intervention
Conference & Exhibition
2008

TABLE OF CONTENTS

Cementless Multi-Zone Horizontal Completion Yields Three-Fold Increase	1
<i>B. Maddox, M. Wharton, R. Hinkie, B. Balcer, M. Farabee, J. Ely</i>	
First Production Log Run in a Heavy-Oil Long-Horizontal Well Through a Y-Tool and Premium Screens	8
<i>J. Montero, N. Salazar, T. Fonydga, K. Reyes</i>	
Development of a High-Performance Spoolable Connector	21
<i>A. Ehtesham, J. Hriscu, A. Zhong</i>	
Effect of External Mechanical Damage on the Fatigue Life of Coiled Tubing Exposed to Sour Environments	30
<i>T. Padron</i>	
Milling of Cast-Iron Bridge Plug With Electric-Line-Conveyed Technology	51
<i>F. Rattray, A. Annandale</i>	
HP/HT Compact Motorhead for Larger-OD Coiled-Tubing/Jointed Pipe Operations: Design, Testing, and Successful Case History	57
<i>A. Ehtesham, J. Hriscu, R. Howard</i>	
Application of a Novel Rigid-Setting Material as an Annular Barrier to Re-Establish Pressure Integrity of Tubing in an Injection Well	68
<i>H. Setiadi, D. Bewick, J. Blair, R. Walger, E. Ridley</i>	
Pressure Transient Analysis Data Collected By the Use of a Retrievable Gauge Hanger in Saudi Arabian Gas Wells	80
<i>R. Zbitowsky, W. N. Garcia, A. M. Al-Shawaf, H. M. Al-Hussain, B. Bill</i>	
Development of Wells Technical Professionals	88
<i>A. Smith, O. Skar, T. Morse</i>	
Comparison of Computational Fluid Dynamics of Erosion in Coiled Tubing to Field and Test Data	96
<i>R. S. Rosine, I. L. Blanco, M. Bailey</i>	
The Effects of Residual Bending Forces on Coiled-Tubing Injector	102
<i>R. S. Rosine, M. Bailey, I. L. Blanco</i>	
Improved Cooperation Between Service Company and Operator for Faster Development of Better Tools	108
<i>M. Koenig, S. McLaughlin</i>	
Pushing the Wireline Operation to New Frontiers	121
<i>M. Al-Dhufairi, A. Al-Ghamdi, D. Lewis, H. Nafa</i>	
A Field Study of Coiled-Tubing Material Loss and Ovality	129
<i>J. Boles, R. Burgos, A. Medina</i>	
Through-Tubing Inflatable Technology Deployed on a Downhole Tractor System Provides Real Time Cost Savings	143
<i>G. M. Kelbie, J. D. MacKay</i>	
CT-Failure Monitoring: A Decade of Experience	155
<i>A. R. Crabtree</i>	

Coiled-Tubing-Conveyed Proppant Treatment Yields Increase in Production Efficiency and Return on Investment.....	162
Z. T. Peak, M. B. Montes, D. Natenberg, M. Durkee	
Improved Method for Underbalanced Perforating With Coiled Tubing in the South China Sea.....	168
G. Rae, M. B. Yusof, J. Ghani, S. Mokhtar, J. Munro	
Solving Excessive Water Production in a Prolific Long Horizontal Open Hole Drilled in a Naturally Fractured Carbonate Reservoir	180
S. Lightford, E. Pitoni, C. P. Serapiglia	
An Isolation and Remediation Solution for Wellhead Maintenance in the North Sea.....	192
D. Petrone, P. Rice, J. H. Pedersen, A. Stjernholm	
The Operational and Economical Impact of CT Spoolable Connectors During the Last Five Years in the Norwegian and Danish Sector of the North Sea: Case Histories.....	199
M. Sach, K. Maribu, J. Haga	
Flow Properties and Drag-Reduction Characteristics of Surfactant-Based Fluids (SBF) in Large-Scale Coiled Tubing.....	208
A. H. A. Kamel, S. N. Shah	
Use of 3D Laser Imaging for Inspection of Coiled Tubing.....	221
A. Christian, S. M. Tipton, A. R. Emmett	
Stimulation With Coiled Tubing and Fluidic Oscillation	229
J. V. U. Gutiérrez, G. F. Callarotti, O. Akrich, R. R. Monroy	
Coiled Tubing and Nitrogen Generation Unit Operations: Corrosion Challenges and Solutions Found in Brazil Offshore Operations	240
L. H. Duque, Z. Guimarães, S. L. Berry, M. Gouveia	
Expanding the Use of Turbodrills in Coiled Tubing and Workover Applications	255
C. Grigor, D. Conroy, M. Hendersone	
New Hydراjet Tool Demonstrates Improved Life for Perforating and Fracturing Applications.....	261
J. B. Surjaatmadja, J. Bezanson, S. Lindsay, P. Ventosilla, K. Rispler	
Improved System for Accessing Multilateral Wells in Canada	276
B. Harber, J. Stuker, D. Pipchuk	
Coiled Tubing Jet Drilling With a Downhole Intensifier	280
J. J. Kolle, K. Theimer, A. Theimer, R. Cox, S. R. Schershel	
Cutting Concentric Casing Strings With Sand Slurry	290
G. R. Hebert, M. Sackash, R. Hogan	
Fiber Sweeps for Hole Cleaning	296
R. M. Ahmed, N. E. Takach	
Intervening With Coiled Tubing Through the Tubing-Casing Annulus to Restore Well Control	308
B. Sonnier, M. Sackash	
Entering Multilateral Wells Using Coiled Tubing	313
R. Proctor, R. Grant, A. Marron, D. Cubas	
Planning for Successful Rig Assist HP/HT Cleanout Operations	329
A. Lamont, P. Radcliffe, M. Klinck, J. Brumfield, G. Bell	

Efficient Offshore Scale Removal Without a Rig: Planning, Logistics, and Execution	339
<i>Z. Guimarães, V. Almeida, L. H. Duque, J. C. Pinto, S. Coutinho, J. V. Chagas, G. V. Costa, A. B. França, M. Gouveia, C. Peixoto, C. A. Teles</i>	
Unique Application of Coiled Tubing and Inflatable Packer Technology Leads to Successful Deoiling of Damaged Pipeline in Gulf of Mexico	346
<i>I. Quintero III, B. Murphy, J. Maddox, J. Noddin, R. Coles</i>	
New Electro-Mechanical Perforating Technology Reduces Cost and Increases Safety in Workover Operations	351
<i>R. A. Bargawi, D. Dean, J. Clemens, C. Whitmire</i>	
Case History: Extended-Stroke Downhole Power Unit Successfully Pulls Subsea Wellhead Plugs.....	360
<i>D. McDaniel, J. Cromb, J. Walton, J. Clemens, D. Moore, J. Huggins</i>	
Field Experience Using an Intervention Wellhead Structure Modeling and Monitoring System	365
<i>K. Newman, E. Smalley, L. Linares, P. Kelleher</i>	
Deepwater Isolation Valve Contingencies Using E-Line Stroking Tool	374
<i>B. Schwanitz</i>	
Extending Mature Field Life Using an Innovative Surface Controlled Subsurface Safety Valve (SC-SSSV).....	379
<i>P. Lalanne, A. Ducasse, E. Barzu, F. Millet, H. Petit, G. Wallez</i>	
HP/HT WCCL Technology Aids Successful Deployment Perforating Operations on the Glenelg Field	386
<i>W. Gordon, I. Pittman, M. Rydlewicz, R. Innes</i>	
Cleanouts With Coiled Tubing in Low-Bottom-Hole Pressure Wellbores.....	397
<i>J. Li, H. B. Luft, G. Wilde, G. Alingig, F. Jumawid</i>	
RFID Actuation of Self Powered Downhole Tools	414
<i>P. M. Snider, T. Doig</i>	
Successful Offshore Application of Acid Tunneling Technology: Overcoming the Difficulties of High Depths, Temperatures, and Deviations	420
<i>L. A. A. Perex, J. D. Diaz, M. Navarro, P. Moss, J. Curtis</i>	
Wireline Deployed Metal Sealing Bridge Plug System: Operational Learning Curve and Subsequent Redevelopment	425
<i>I. C. Chapman, K. S. Ng, N. M. Nor, G. R. J. Mackenzie, G. L. Garfield</i>	
Effective Approach for CT Interventions on Inaccessible Offshore Platforms in the North Sea.....	438
<i>J. Cochran, D. Petrone, A. Clubb, S. Greig</i>	
Innovative Tool for Coiled-Tubing Depth Measurement Increases Productivity and Minimizes Costs While Improving Accuracy and Safety	446
<i>P. I. Ohaegbu, S. Minish, C. Morris, D. Boyd</i>	
Quick-Rigup HWU Barge-Assist Operations in the Gulf of Thailand	453
<i>D. Robichaux, K. Henning</i>	
High-Volume Wellwork Planning and Execution on the North Slope, Alaska	459
<i>D. A. Cismoski, R. S. Rossberg, J. Y. Julian, G. Murphy, D. Scarpella, A. Zambrano, C. A. Meyer</i>	
Author Index	